AMENDMENTS TO THE CLAIMS

Without prejudice, please amend the claims as reflected in the following listing of claims, which will replace all prior versions, and listings, of claims in the application:

1. **(Currently Amended)** Apparatus for heating a bitumen froth by steam, the apparatus comprising:

~~a heater~~ an injector body comprising a bitumen froth inlet for receiving the bitumen froth, a steam inlet for receiving the steam, and ~~a mixture~~ an injector outlet; and

a static mixer body having first and second spaced ends and forming an enclosed passageway extending between the first and second ends, wherein the first end is in communication with the ~~mixture~~ injector outlet, the static mixer body supporting a plurality of baffles disposed within the enclosed passageway to effect a mixing action of ~~material~~ the bitumen froth and the steam flowing through the enclosed passageway thereof to form a heated feed;

wherein the steam inlet is disposed to inject the steam into the ~~heater~~ injector body towards the enclosed passageway in a direction generally parallel to ~~the~~ a longitudinal axis of the enclosed passageway; and

wherein the apparatus is operably configured to: (a) force ~~direct substantially all of~~ the bitumen froth and the steam through the ~~mixture~~ injector outlet[[,]] into the enclosed passageway, (b) force the bitumen froth and the steam through the enclosed passageway from the first end to the second end so as to cause the steam to contact the bitumen froth so as to form the heated feed, and (c) force all of the heated feed to exit through ~~and out~~ the second end of the static mixer body, including when the enclosed passageway is disposed parallel or about parallel to the horizontal axis.

2. **(Currently Amended)** The apparatus of claim 1 wherein the baffles are disposed within the static mixer body to impart a lateral, radial, tangential or circumferential directional component to the bitumen froth and the steam, the directional component changing ~~a material flow through said enclosed passageway that changes~~ repeatedly along ~~the~~ a length of the enclosed passageway.

3. **(Currently Amended)** The apparatus of claim 1 further comprising a steam flow control valve to control a rate of supplying the steam ~~supply~~ to the steam inlet from a steam source.

4. **(Currently Amended)** The apparatus of claim 3 further comprising a first temperature transmitter disposed to measure a temperature of ~~material flowing through~~ the heated feed exiting the enclosed passageway of the static mixer, wherein ~~thereby forming a closed loop control system of the~~ steam flow control valve is responsive to the measured temperature of the heated feed.

5. **(Currently Amended)** The apparatus of claim 1 further comprising a steam flow pressure control valve to control a pressure of the steam supplied to the steam inlet from a steam source.

6. **(Currently Amended)** The apparatus of claim 5 further comprising a pressure transmitter disposed to measure the pressure of the steam supplied from the steam flow pressure control valve, wherein the steam flow pressure control valve is operative to maintain the steam supplied to the steam inlet at a predetermined pressure in response to the measured pressure of the steam supplied from the steam flow pressure control valve ~~thereby forming a closed control system of the steam flow pressure control valve to maintain the pressure of the steam supplied to the steam inlet~~.

7. **(Currently Amended)** The apparatus of claim 1 further comprising:

a condensate source and a steam source;

a condensate mixer operably configured to mix a condensate from the condensate source with the steam from the steam source for modulating a temperature of the steam supplied to the steam inlet; and

a condensate flow control valve to control a supply of the condensate to the condensate mixer.

8. **(Currently Amended)** The apparatus of claim 7 further comprising a second temperature transmitter disposed to measure ~~a~~ the temperature of ~~a~~ the steam ~~supply~~ supplied to the steam inlet and relay a representation of the measured temperature of the steam to the condensate flow control valve, wherein the condensate flow control valve is operative ~~thereby forming a closed loop control system of the condensate flow control valve~~ to control the supply

of the condensate to the steam ~~supply~~ supplied to the steam inlet ~~responsive to the measured temperature~~.

9-24. **(Cancelled)**

25. **(Currently Amended)** The apparatus of claim 1 ~~further comprising a steam source operably configured to deliver steam to the steam inlet at about 90 psi~~ wherein the steam supplied to the steam inlet comprises saturated steam.

26. **(Currently Amended)** The apparatus of claim ~~3 further comprising a steam source operably configured to deliver steam to the steam flow control valve at about~~ 25 wherein the steam supplied to the steam inlet has a temperature of about 300°F and a pressure of about 90 psi.

27. **(Currently Amended)** The apparatus of claim ~~5~~ 25 wherein the ~~steam flow pressure control valve is operably configured to deliver steam to the steam inlet at about 90 psi~~ heated feed has a substantially uniform temperature.

28. **(Currently Amended)** The apparatus of claim ~~9~~ 27 wherein the ~~steam pressure flow control valve is operably configured to deliver steam to the steam inlet at about 90 psi~~ substantially uniform temperature is about 190°F.

29. **(Canceled)**

30. **(Canceled)**

31. **(New)** Apparatus for heating a bitumen froth by steam, the apparatus comprising:

an injector body comprising walls defining a chamber of the injector body, a first injector inlet for introducing the bitumen froth having a bitumen froth flow into the chamber, a second injector inlet for introducing the steam having a steam flow into the chamber, and an injector outlet, wherein the second injector inlet is configured for introducing steam; and

a static mixer body comprising:

a mixer inlet and a mixer outlet, the static mixer body forming an enclosed passageway extending between the mixer inlet and the mixer outlet, the mixer inlet being in fluid communication with the injector outlet for receiving the bitumen froth and the steam; and

mixing means for mixing the bitumen froth and the steam flowing through the enclosed passageway of the static mixer body to form a heated feed;

wherein the injector body and the static mixer body are operably configured to: (a) force the bitumen froth and the steam through the enclosed passageway from the mixer inlet to the mixer outlet so as to cause the steam to contact the bitumen froth and form the heated feed, and (b) force all of the heated feed to exit through the mixer outlet, including when the enclosed passageway is disposed parallel or about parallel to the horizontal axis.

32. **(New)** The apparatus of claim 31 wherein the mixing means impart a lateral, radial, tangential or circumferential directional component to the bitumen froth and the steam, the directional component changing repeatedly along a length of the enclosed passageway.

33. **(New)** The apparatus of claim 31 wherein the mixing means comprises a plurality of static mixer barriers forming partial walls disposed within the enclosed passageway.

34. **(New)** The apparatus of claim 33 wherein the steam injected by the second injector inlet has a temperature of about 300°F to about 500°F and a pressure of about 90 to 150 psi.

35. **(New)** The apparatus of claim 33 wherein the heated feed produced by the static mixer body has a temperature of about 190°F.

36. **(New)** The apparatus of claim 31 further comprising a steam flow control valve to control a rate of the steam flow into the chamber and a first temperature transmitter disposed to measure a temperature of the heated feed exiting the static mixer body, wherein the injector body, the static mixer body, the steam flow control valve and the first temperature transmitter form a first closed loop control system, the steam flow control valve being responsive to the measured temperature of the heated feed by the first temperature transmitter.

37. **(New)** The apparatus of claim 36 further comprising a steam flow pressure control valve to control a pressure of the steam flow into the chamber and a pressure transmitter disposed to measure the pressure of the steam flow from the pressure control valve, wherein the injector body, the static mixer body, the steam flow control valve, the temperature transmitter, the steam flow pressure control valve and the pressure transmitter form a second closed loop control system, the steam flow pressure control valve being responsive to the measured pressure.

38. **(New)** The apparatus of claim 37 further comprising a condensate flow control valve to control the supply of a condensate to the steam for modulating the temperature of the steam for injecting by the second injector inlet and a second temperature transmitter disposed to measure the temperature of the steam supplied to the second injector inlet, wherein the injector body, the static mixer body, the steam flow control valve, the first temperature transmitter, the steam flow pressure control valve, the pressure transmitter, the condensate flow control valve, and the second temperature transmitter form a third closed loop control system, the condensate flow control valve being responsive to the temperature of the steam measured by the second temperature transmitter.

39. **(New)** The apparatus of claim 31 wherein the mixing means comprises a baffle disposed across the enclosed passageway.

40. **(New)** The apparatus of claim 31 wherein the steam supplied to the second injector inlet comprises saturated steam.